

Claims

1. Vehicle stabilizing device for setting or modifying brake pressures in the wheel brakes of a braking system with diagonally divided braking circuits, characterized in that a device for determining the understeering drive condition,

a controller for calculating a desired speed or deceleration, and derived therefrom a deceleration braking force in accordance with the understeering drive condition,

a braking force control which in the wheel brakes of the front axle sets a differential braking force between the wheel brakes, which corrects the understeering drive condition, in accordance with the deceleration control braking force.

2. Drive stabilizing device as defined in Claim 1, characterized in that a braking pressure control is provided which, as a function of the differential braking force, generates signals for a pressure requirement effecting a yaw moment of the vehicle in accordance with a pressure buildup and pressure decrease of the braking pressures at the front axle, and which transmits control commands to the actuators.

3. Vehicle stabilizing device as defined in Claim 1 or 2, characterized in that the desired braking pressures effecting the differential braking force are formed as a function of a vehicle deceleration a_{Soll} and an offset $F_{\Delta\psi}$.

4. Drive stabilizing device as defined in one of Claims 1 through 3, characterized in that the vehicle delay is determined as a function of the control deviation $\Delta\psi$ and the vehicle speed v .

5. Drive stabilizing device as defined in one of Claims 1 through 4, characterized in that the setpoint braking force at the cornered inside front wheel is formed according to the relation $F_{Soll} = a_{Soll} f(\Delta\psi, v, a_{quer}, \delta)$.

6. Vehicle stabilizing device as defined in one of Claims 1 through 5, the desired brake pressure at the cornered outside front wheel is formed according to the relation $F_{Soll} = a_{Soll} f(\Delta\psi, v, a_{quer}, \delta) - F_{\Delta\psi}$.

7. Vehicle stabilizing device as defined in one of Claims 1 through 6, characterized in that the pressure requirement for the pressure buildup at the cornered inside front wheel is limited to an upper value to which a maximum slip range is allocated, in which the ABS control is activated.

8. Drive stabilizing device as defined in one of Claims 1 through 7, characterized in that a pressure buildup at the cornered inside rear wheel is effected according to the understeering control braking pressure, when the pressure requirement for the pressure buildup at the cornered outside front wheel is 0 bar.

9. Drive stabilizing device as defined in one of Claims 1 through 8, characterized in that the desired braking pressures are controlled via a selection of the changeover valve and/or block valve in the wheel brakes.